

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Original): A method of controlling a transmission power of a multicast signal that is transmitted from a base station to a plurality of mobile stations through a radio link, comprising the steps of:

measuring a value of a received signal quality parameter of a multicast signal received at the mobile stations;

transmitting a parameter signal, indicating the received signal quality parameter value, from the mobile stations to the base station through the radio link;

receiving the parameter signals from the mobile stations at the base station through the radio link;

determining a power control value of each of the mobile stations based on the received signal quality parameter values of the parameter signals received at the base station; and

controlling the transmission power of the multicast signal, sent to each of the mobile stations, based on the determined power control value.

Claim 2 (Currently Amended): ~~The method according to claim 1~~ A method of controlling a transmission power of a multicast signal that is transmitted from a base station to a plurality of mobile stations through a radio link, comprising the steps of:

measuring a value of a received signal quality parameter of a multicast signal received at the mobile stations;

transmitting a parameter signal, indicating the received signal quality parameter value, from the mobile stations to the base station through the radio link;

receiving the parameter signals from the mobile stations at the base station through the radio link;

determining a power control value of each of the mobile stations based on the received signal quality parameter values of the parameter signals received at the base station;  
and

controlling the transmission power of the multicast signal, sent to each of the mobile stations, based on the determined power control value, wherein, in said determining step, a minimum value of the received signal quality parameter values of the received parameter signals is determined as being the power control value.

Claim 3 (Original): The method according to claim 1, wherein, in said determining step, the received signal quality parameter values are rearranged into a sequence of the parameter values in a predetermined order, and one of the parameter values in the rearranged sequence that corresponds to a predetermined ratio of the entire mobile stations is determined as being the power control value.

Claim 4 (Original): The method according to claim 1, wherein a reception power of the received multicast signal is measured as being the value of the received signal quality parameter in said measuring step.

Claim 5 (Original): The method according to claim 1, wherein, in said measuring step, a carrier-to-cochannel interference C/I ratio of the received multicast signal is measured, and a difference between the measured C/I ratio and a reference C/I ratio is measured as being the value of the received signal quality parameter.

Claim 6 (Original): The method according to claim 1, wherein one of a bit error ratio, a packet error ratio and a slot error ratio of the received multicast signal is measured as being the value of the received signal quality parameter in said measuring step.

Claim 7 (Original): The method according to claim 1, wherein one of an error-correction-bit number and a maximum likelihood value, obtained by decoding of the received multicast signal, is measured as being the value of the received signal quality parameter in said measuring step.

Claim 8 (Original): A base station which controls a transmission power of a multicast signal that is transmitted to a plurality of mobile stations through a radio link, comprising:

a receiver receiving parameter signals from the mobile stations through the radio link, each parameter signal indicating a value of a received signal quality parameter of the multicast signal received at one of the mobile station;

a determination unit determining a power control value of each of the mobile stations based on the received signal quality parameter values of the parameter signals received by the receiver; and

a transmission power controller controlling the transmission power of the multicast signal, sent to each of the mobile stations, based on the determined power control value.

Claim 9 (Currently Amended): ~~The base station according to claim 8~~ A base station which controls a transmission power of a multicast signal that is transmitted to a plurality of mobile stations through a radio link, comprising:

a receiver receiving parameter signals from the mobile stations through the radio link,  
each parameter signal indicating a value of a received signal quality parameter of the  
multicast signal received at one of the mobile station;

a determination unit determining a power control value of each of the mobile stations  
based on the received signal quality parameter values of the parameter signals received by the  
receiver; and

a transmission power controller controlling the transmission power of the multicast  
signal, sent to each of the mobile stations, based on the determined power control value,  
wherein the determination unit determines a minimum value of the received signal quality  
parameter values of the received parameter signals as being the power control value.

Claim 10 (Original): The base station according to claim 8, wherein the  
determination unit rearranges the received signal quality parameter values into a sequence of  
the parameter values having a predetermined order, and determines one of the parameter  
values in the rearranged sequence that corresponds to a predetermined ratio of the entire  
mobile stations as being the power control value.

Claim 11 (Original): The base station according to claim 8, wherein each of the  
mobile stations measures a reception power of the received multicast signal as being the  
value of the received signal quality parameter.

Claim 12 (Original): The base station according to claim 8, wherein each of the  
mobile stations measures a carrier-to-cochannel interference C/I ratio of the received  
multicast signal, and measures a difference between the measured C/I ratio and a reference  
C/I ratio as being the value of the received signal quality parameter.

Claim 13 (Original): The base station according to claim 8, wherein each of the mobile stations measures one of a bit error ratio, a packet error ratio and a slot error ratio of the received multicast signal as being the value of the received signal quality parameter.

Claim 14 (Original): The base station according to claim 8, wherein each of the mobile stations measures one of an error-correction-bit number and a maximum likelihood value, obtained by decoding of the received multicast signal, as being the value of the received signal quality parameter.

Claim 15 (Original): A method of controlling a transmission power of a multicast signal that is transmitted from a base station to a plurality of mobile stations through a radio link, comprising the steps of:

transmitting the multicast signal to the mobile stations through the radio link;  
receiving an automatic repeat request ARQ signal from each of the mobile stations at the base station through the radio link, wherein each of the mobile stations transmits the ARQ signal to the base station when an error in demodulation of a received multicast signal occurs;  
detecting whether at least one of a plurality of ARQ signals from the mobile stations is received at the base station;  
outputting a power control signal indicating a result of the ARQ-signal detection; and  
controlling the transmission power of the multicast signal, sent to each of the mobile stations, based on the ARQ-signal detection result indicated by the power control signal.

Claim 16 (Original): The method according to claim 15, wherein, in said controlling step, the transmission power of the multicast signal is increased when at least one of the ARQ

signals is received at the base station, and the transmission power of the multicast signal is decreased when none of the ARQ signals is received at the base station.

Claim 17 (Original): The method according to claim 15, wherein, in said detecting step, it is detected whether a ratio of the number of the received ARQ signals to the number of the mobile stations exceeds a predetermined ratio, and, in said controlling step, the transmission power of the multicast signal is increased when the ratio of the ARQ-signal number exceeds the predetermined ratio, and the transmission power of the multicast signal is decreased when the ratio of the ARQ-signal number does not exceed the predetermined ratio.

Claim 18 (Original): A base station which controls a transmission power of a multicast signal that is transmitted to a plurality of mobile stations through a radio link, comprising:

- a transmitter transmitting the multicast signal to the mobile stations through the radio link;

- a receiver receiving an automatic repeat request ARQ signal from each of the mobile stations through the radio link, wherein each of the mobile stations transmits the ARQ signal to the base station when an error in demodulation of a received multicast signal occurs;

- a signal counter unit detecting whether at least one of a plurality of ARQ signals from the mobile stations is received by the receiver, and outputting a power control signal indicating a result of the ARQ-signal detection; and

- a transmission power controller controlling the transmission power of the multicast signal, sent to each of the mobile stations, based on the ARQ-signal detection result indicated by the power control signal of the signal counter unit.

Claim 19 (Original): The base station according to claim 18, wherein the transmission power controller is configured to increase the transmission power of the multicast signal when at least one of the ARQ signals is received by the receiver, and to decrease the transmission power of the multicast signal when none of the ARQ signals is received by the receiver.

Claim 20 (Original): The base station according to claim 18, wherein the signal counter unit is configured to detect whether a ratio of the number of the received ARQ signals to the number of the mobile stations exceeds a predetermined ratio, and wherein the transmission power controller is configured to increase the transmission power of the multicast signal when the ratio of the ARQ-signal number exceeds the predetermined ratio, and to decrease the transmission power of the multicast signal when the ratio of the ARQ-signal number does not exceed the predetermined ratio.